Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (Currently Amended): A method of generating outputs in response to real world stimulation comprising:

capturing two or more simultaneous user inputs that are responsive to training stimulation;

synthesizing the captured user inputs;

generating a user memory model representation of the synthesized user inputs, the model comprising objects and object links in a partially orthogonal N-dimensional object space;

storing the generated model; and

using the stored model to generate output signals in response to real-world stimulation.

Claim 2 (Previously Presented): The method according to claim 1, further comprising:

using a forced choice interaction to generate one or more additional user inputs;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 3 (Currently Amended): The method according to claim 1, wherein the model comprises a worldline of linked object diagram exemplars ~~in an N-dimensional space~~.

Claim 4 (Previously Presented): The method according to claim 1, wherein

the real world stimulation comprises simultaneous user inputs that are compared to the stored model, and

the output signals are based on the results of the comparison.

Claim 5 (Previously Presented): The method according to claim 1, wherein the method is performed at least partly in accordance with computer-executable instructions stored on a computer-readable medium.

Claim 6 (Previously Presented): The method according to claim 1, wherein the method is performed at least partly by a hardware processing engine.

Claim 7 (Previously Presented): The method according to claim 1, wherein the method is performed by at least partly by an application specific integrated circuit.

Claim 8 (Previously Presented): The method according to claim 1, wherein the method is performed at least partly by a netlist integrated into other integrated circuits.

Claim 9 (Currently Amended): A method of generating outputs in response to control command stimulation comprising:

capturing two or more simultaneous user inputs that are responsive to training stimulation;

synthesizing the captured user inputs;

generating a user memory model representation of the synthesized user inputs, the model comprising objects and object links in a partially orthogonal N-dimensional object space;

storing the generated model; and

using the stored model to generate output signals in response to control command stimulation.

Claim 10 (Previously Presented): The method according to claim 9, further comprising:

using forced choice interaction to generate one or more additional user inputs;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 11 (Currently Amended): The method according to claim 9, wherein the model comprises a worldline of linked object diagram exemplars ~~in an N-dimensional space~~.

Claim 12 (Previously Presented): The method according to claim 9, wherein

the real world stimulation comprises simultaneous user inputs that are compared to the stored model, and

the output signals are based on the results of the comparison.

Claim 13 (Previously Presented): The method according to claim 9, wherein the method is performed at least partly in accordance with computer-executable instructions stored on a computer-readable medium.

Claim 14 (Previously Presented): The method according to claim 9, wherein the method is performed at least partly by a hardware processing engine.

Claim 15 (Previously Presented): The method according to claim 9, wherein the method is performed at least partly by an application specific integrated circuit.

Claim 16 (Previously Presented): The method according to claim 9, wherein the method is performed at least partly by a netlist integrated into other integrated circuits.

Claim 17 (Currently Amended): A system for generating [[an]] outputs in response to real world stimulation comprising:

input capture circuitry that captures two or more simultaneous user inputs that are responsive to training stimulation;

processing circuitry for synthesizing the captured user inputs and generating a user memory model representation of the synthesized user inputs, the model comprising objects and object links in a partially orthogonal N-dimensional object space; and

a memory that stores the generated model; and

an output generator that uses the stored model to generate output signals in response to real world stimulation.

Claim 18 (Previously Presented): The system according to claim 17, wherein the input capture circuitry further captures one or more additional user inputs generated from a forced choice interaction and the additional user inputs are incorporated into the model.

Claim 19 (Currently Amended): The system according to claim 17, wherein the model comprises a worldline of linked object diagram exemplars ~~in an N-dimensional space~~.

Claim 20 (Previously Presented): The system according to claim 17, wherein the real world stimulation comprises simultaneous user inputs that are compared to the stored model, and the output signals are based on the results of the comparison.

Claim 21 (Original): The system according to claim 17, wherein at least part of said system is implemented in a computer software program.

Claim 22 (Original): The system according to claim 17, wherein at least part of said system is implemented as a hardware processing engine.

Claim 23 (Original): The system according to claim 17, wherein at least part of said system is implemented as an application specific integrated circuit.

Claim 24 (Original): The system according to claim 17, wherein at least part of said system is implemented as a net list integrated into other integrated circuits.

Claim 25 (Currently Amended): A system for generating <u>outputs</u> ~~an output~~ in response to control command stimulation comprising:

input capture circuitry that captures two or more simultaneous user inputs that are responsive to training stimulation;

processing circuitry for synthesizing the captured user inputs and generating a user memory model representation of the synthesized user inputs, the model comprising objects and object links in a partially orthogonal N-dimensional object space; and

a memory that stores the generated model; and

an output generator that uses the stored model to generate output signals in response to control command stimulation.

Claim 26 (Original): The system according to claim 25, wherein the input capture circuitry further captures one or more additional inputs generated from a forced choice interaction and the additional inputs are incorporated into the model.

Claim 27 (Currently Amended): The system according to claim 25, wherein the model comprises a worldline of linked object diagram exemplars ~~in an N-dimensional space~~.

Claim 28 (Previously Presented): The system according to claim 25, wherein the real world stimulation comprises simultaneous inputs that are compared to the stored model, and the output signals are based on the results of the comparison.

Claim 29 (Original): The system according to claim 25, wherein at least part of said system is implemented in a computer software program.

Claim 30 (Original): The system according to claim 25, wherein at least part of said system is implemented as a hardware processing engine.

Claim 31 (Original): The system according to claim 25, wherein at least part of said system is implemented as an application specific integrated circuit.

Claim 32 (Original): The system according to claim 25, wherein at least part of said system is implemented as a net list integrated into other integrated circuits.

Claim 33 (Currently Amended): A method of generating outputs in response to real world stimulation comprising:

capturing two or more simultaneous user inputs that are responsive to training stimulation;

synthesizing the captured user inputs through a dynamic, user memory model-based response generation from the captured user inputs with correlated congruence to two or more data input channels;

storing the model representation of the synthesis generation as mapped into a partially orthogonal [[an]] N-dimensional representation; and

using the stored model to generate output signals in response to real world stimulation through temporally sensitive similarity matching.

Claim 34 (Previously Presented): The method according to claim 33, further comprising:

using a forced choice interaction of dynamic temporal events to generate one or more additional simultaneous user inputs, which are physically/mentally linked pattern responses;

capturing the additional user inputs; and

incorporating the additional user inputs into the model.

Claim 35 (Currently Amended): A method of generating outputs in response to real world stimulation comprising:

receiving two or more simultaneous inputs supplied by a user in response to training stimulation;

generating a model comprising objects and object links in a partially orthogonal [[an]] N-dimensional object space, the model representing a synthesis of the simultaneous user inputs~~, wherein the object space comprises a plurality of objects and object links between the objects~~;

mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the model ~~object space~~ representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

generating output signals in response to the comparing.

Claim 36 (Previously Presented): A ~~The~~ method ~~according to claim 35,~~ of generating outputs in response to real world stimulation comprising:

receiving two or more simultaneous inputs supplied by a user in response to training stimulation;

generating a model comprising objects and object links in an N-dimensional object space, the model representing a synthesis of the simultaneous user inputs, wherein the objects ~~in the object space~~ include objects of two or more different object classes;

mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the model representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

generating output signals in response to the comparing.

Claim 37 (Previously Presented): The method according to claim 36, wherein the object links comprise worldlines each connecting the objects of a respective one of the different classes.

Claim 38 (Previously Presented): The method according to claim 36, wherein the different object classes correspond to different user training sessions.

Claim 39 (Canceled).

Claim 40 (Previously Presented): The method according to claim 35, wherein N>3.

Claim 41 (Previously Presented): The method according to claim 35, wherein the N-dimensional space is mapped to the one or more M-dimensional sub-spaces using subspace projection operators.

Claim 42 (Previously Presented): The method according to claim 41, wherein the subspace projection operators project densities to the M-dimensional space.

Claim 43 (Previously Presented): The method according to claim 42, wherein the subspace projection operators project the densities onto axes of the object space model.

Claim 44 (Previously Presented): The method according to claim 42, wherein the subspace projection operators include subspace projection operators for obtaining attribute densities.

Claim 45 (Previously Presented): The method according to claim 42, wherein the subspace projection operators include subspace projection operators for obtaining object link densities.

Claim 46 (Previously Presented): The method according to claim 35, wherein the object links comprise a worldline connecting the objects.

Claim 47 (Previously Presented): The method according to claim 35, wherein the subsequently received simultaneous user inputs are provided in response to a forced choice interaction with the user.

Claim 48 (Previously Presented): The method according to claim 35, wherein the method is performed at least partly in accordance with computer-executable instructions stored on a storage medium.

Claim 49 (Previously Presented): The method according to claim 35, wherein the method is performed at least partly by a hardware processing engine.

Claim 50 (Previously Presented): The method according to claim 35, wherein the method is performed at least partly by an application specific integrated circuit.

Claim 51 (Previously Presented): The method according to claim 35, wherein the method is performed at least partly by a netlist integrated into other integrated circuits.

Claim 52 (Currently Amended): A system for generating outputs in response to real world stimulation comprising:

inputs for receiving two or more simultaneous inputs supplied by a user in response to training stimulation;

storage for storing a model comprising objects and object links in a partially orthogonal [[an]] N-dimensional object space, the model representing a synthesis of the simultaneous user inputs~~, wherein the object space comprises a plurality of objects and object links between the objects~~;

a processing system for mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the model ~~object space~~ representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

outputs for outputting output signals based on the comparing.

Claim 53 (Previously Presented): The method according to claim 35, wherein the

output signals comprise display signals.

Claim 54 (Previously Presented): The method according to claim 35, wherein the output signals comprise control signals.

Claim 55 (Previously Presented): The system according to claim 52, wherein the output signals comprise display signals.

Claim 56 (Previously Presented): The system according to claim 52, wherein the output signals comprise control signals.

Claim 57 (New): A system for generating outputs in response to real world stimulation comprising:

inputs for receiving two or more simultaneous inputs supplied by a user in response to training stimulation;

storage for storing a model comprising objects and object links in an N-dimensional object space, the model representing a synthesis of the simultaneous user inputs, wherein the objects include objects of two or more different object classes;

a processing system for mapping the N-dimensional object space to one or more M-dimensional sub-spaces to compare the model representing the synthesis of the simultaneous user inputs to subsequently received simultaneous user inputs; and

outputs for outputting output signals based on the comparing.

Claim 58 (New): The system according to claim 57, wherein the output signals comprise display signals.

Claim 59 (New): The system according to claim 57, wherein the output signals comprise control signals.